

What we claim is:

1. A process for converting a pressurized methane-rich vapor at a first pressure to a predetermined second pressure higher than the first pressure, comprising:
 - (a) providing the pressurized methane-rich vapor in a first container at the first pressure;
 - (b) withdrawing a pressurized liquid rich in methane from a second container;
 - (c) passing the pressurized liquid of step (b) to an eductor to drive the eductor and passing the vapor to the eductor, thereby liquefying the vapor and combining the liquefied vapor with the pressurized liquid;
 - (d) before or after step (c), pumping the pressurized liquid to a third pressure, higher than the second pressure; and then
 - (e) heating the pressurized liquid, thereby producing a vapor at the predetermined second pressure.
2. A process for converting a pressurized methane-rich vapor at a first pressure to a predetermined second pressure higher than the first pressure, comprising:
 - (a) providing the pressurized methane-rich vapor in a first container at the first pressure;
 - (b) withdrawing a pressurized first liquid rich in methane from a second container;
 - (c) pumping the pressurized first liquid to a third pressure, higher than the second pressure;
 - (d) passing the pressurized first liquid of step (c) to an eductor to drive the eductor;
 - (e) educting vapor from the first container and passing the vapor to the eductor, thereby liquefying the vapor and combining the liquefied vapor with the first liquid to form a second liquid at a pressure equal to or higher than the second pressure; and
 - (f) heating the second liquid, thereby producing a vapor at the predetermined second pressure.

3. A process for converting a pressurized methane-rich vapor at a first pressure to a vapor at a predetermined second pressure higher than the first pressure, comprising:
 - (a) providing the pressurized methane-rich vapor in a first container at the first pressure;
 - (b) withdrawing a pressurized first liquid rich in methane from a second container;
 - (c) passing the pressurized first liquid of step (b) to an eductor to drive the eductor;
 - (d) educting vapor from the first container and passing the vapor to the eductor, thereby liquefying the vapor and combining the liquefied vapor with the first liquid to form a second liquid at a third pressure;
 - (e) pumping the second liquid to substantially the second pressure; and
 - (f) heating the second liquid, thereby producing a vapor at the predetermined second pressure.
4. The process of claim 3 further comprising passing the vapor produced in step (f) to a pipeline.
5. The process of claim 3 wherein the second liquid is at or below its bubble point temperature.
6. A process for converting a pressurized methane-rich vapor at a first pressure to a predetermined second pressure higher than the first pressure, comprising:
 - (a) providing the pressurized methane-rich vapor in a container at the first pressure;
 - (b) withdrawing a pressurized first liquid rich in methane from the container;
 - (c) pumping the pressurized first liquid to a third pressure, higher than the second pressure;
 - (d) passing the pressurized first liquid of step (c) to an eductor to drive the eductor, the eductor producing a second liquid at the second pressure;
 - (e) educting vapor from the first container and passing the vapor to the eductor, thereby causing the vapor to liquefy and be combined with the first liquid to form the second liquid; and

- (f) heating the second liquid, thereby producing a vapor at the predetermined second pressure.